

NEPSR 2016 Pipeline Safety Seminar

S. Portland, Maine



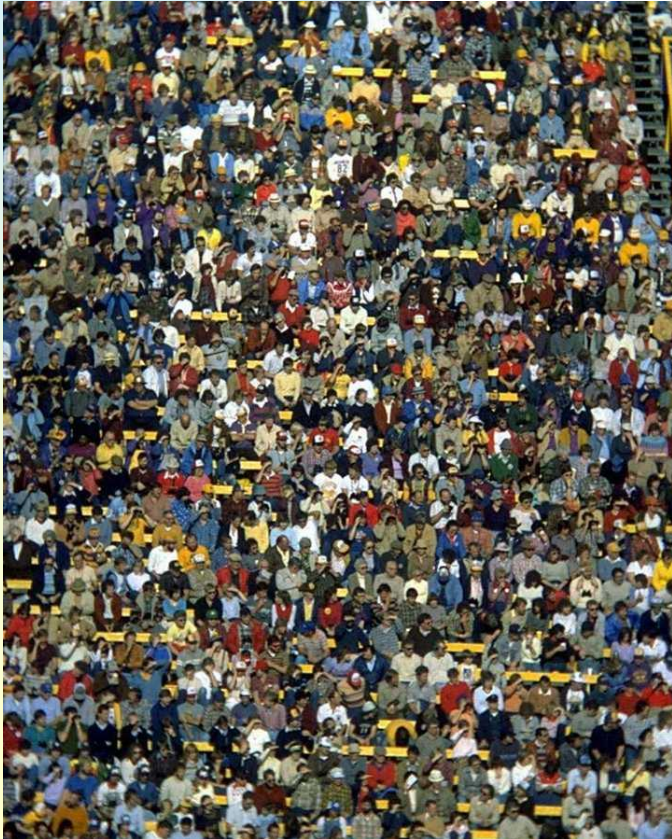
Don Ledversis,
Rhode Island Division of Public Utilities
and Carriers



Know what's below.
Call before you dig.



Rhode Island Gas Statistics



■ **>194,843 Services**

Rhode Island Gas Statistics

- **> 3,210 miles
of main**





WA
Olympia

OR
Salem

ID
Eolse

MT
Helena

ND
Bismark

MN

Montpeller, VT

Augusta

Concord

Boston, MA

Providence

Hartford, CT

Trenton, NJ

Dover, DE

Annapolis, MD

Richmond, VA

Sacramento

San Francisco

Denver

Phoenix

Lincoln

Des Moines

St. Paul

Indianapolis

Columbus

Harrisburg

Frankfort

Charleston

Nashville

Raleigh

Columbia

Atlanta

Montgomery

Tallahassee

AK

CA

NY

UT

CO

KS

NE

SD

MO

IL

IN

OH

WV

PA

NY

VT

MA

CT

NJ

DE

MD

VA

NC

SC

GA

AL

MS

LA

TX

NM

AZ

HI


NOTE:
ALASKA & HAWAII
NOT TO SCALE

Honolulu

Company started in 1847

337

Cheer Building.
P. L. till 6 P. M.

 This Bill, if not paid to the Collector on Presentation, must be paid at the Office of the Company within 5 days from January.

Wm. Knight

To PROVIDENCE GAS COMPANY, Dr.

For Gas consumed from Sept. 21 to Dec. 31 1866.

Index, 1179-1281 } 102
" 48-63 } 15 } 11700 Cubic Feet, } at \$3.50 per M.,
Free of Government Tax,
Rent of Meter 6 mos. 4095

Received Payment for the Company,
Jan'y 14 1867. \$

Copies of Rules and Terms of Supply
furnished at the Office.

Cambridge
Clerk.

In 2007 RI the worst at 52.3%

	Miles of Main				
	Unprotected Steel	Cast/Wrought Iron	Total Miles leak prone pipe	% of Total Miles leak prone pipe	Total Main Mileage
RHODE ISLAND Totals	711	908	1,619	52.3%	3,095
WASHINGTON DC Totals	102	451	553	46.4%	1,191
MASSACHUSETTS Totals	3,635	4,165	7,801	37.9%	20,574
WEST VIRGINIA Totals	3,409	14	3,424	35.9%	9,531
NEW YORK Totals	9,321	5,088	14,409	31.0%	46,464
PENNSYLVANIA Totals	10,526	1,901	12,427	26.8%	46,449
NEW JERSEY Totals	3,010	5,603	8,613	26.3%	32,755
CONNECTICUT Totals	283	1,640	1,923	25.6%	7,517
MAINE Totals	6	89	95	18.4%	516
MARYLAND Totals	602	1,467	2,068	15.2%	13,646
NEW HAMPSHIRE Totals	120	309	428	13.8%	3,096
VIRGINIA Totals	1,050	676	1,726	8.8%	19,692
DELAWARE Totals	67	124	191	7.4%	2,585
	28,394	16,911	45,305		182,251

2015 Gas Distribution Annual Report Mileage

Data as of 05/18/2016

2015 2nd place at 38%

REPORT YEAR 2015	Miles of Main				
	Unprotected Steel	Cast/Wrought Iron	Total Miles leak prone pipe	% leak prone pipe	Total Main Mileage
WASHINGTON DC TOTALS	86	412	498	41.1%	1,214
RHODE ISLAND TOTALS	452	769	1,221	38.0%	3,210
MASSACHUSETTS TOTALS	2,531	3,315	5,847	27.1%	21,576
WEST VIRGINIA TOTALS	2,881	14	2,895	26.7%	10,850
PENNSYLVANIA TOTALS	8,111	2,901	11,012	23.0%	47,895
NEW YORK TOTALS	7,126	3,960	11,087	22.8%	48,679
CONNECTICUT TOTALS	204	1,349	1,553	19.5%	7,984
NEW JERSEY TOTALS	2,014	4,586	6,600	19.0%	34,792
MARYLAND TOTALS	331	1,318	1,649	11.1%	14,806
NEW HAMPSHIRE TOTALS	32	113	145	7.5%	1,920
MAINE TOTALS	20	45	64	5.5%	1,171
VIRGINIA TOTALS	642	263	905	4.3%	21,298
DELAWARE TOTALS	32	76	108	3.5%	3,105
VERMONT TOTALS	0	0	0	0.0%	789
EASTERN REGION TOTALS	24,462	19,121	43,583		219,287

ARP Program 2016

Accelerated Replacement Program

Replacing approx. 60+ miles of
CI/Bare Steel





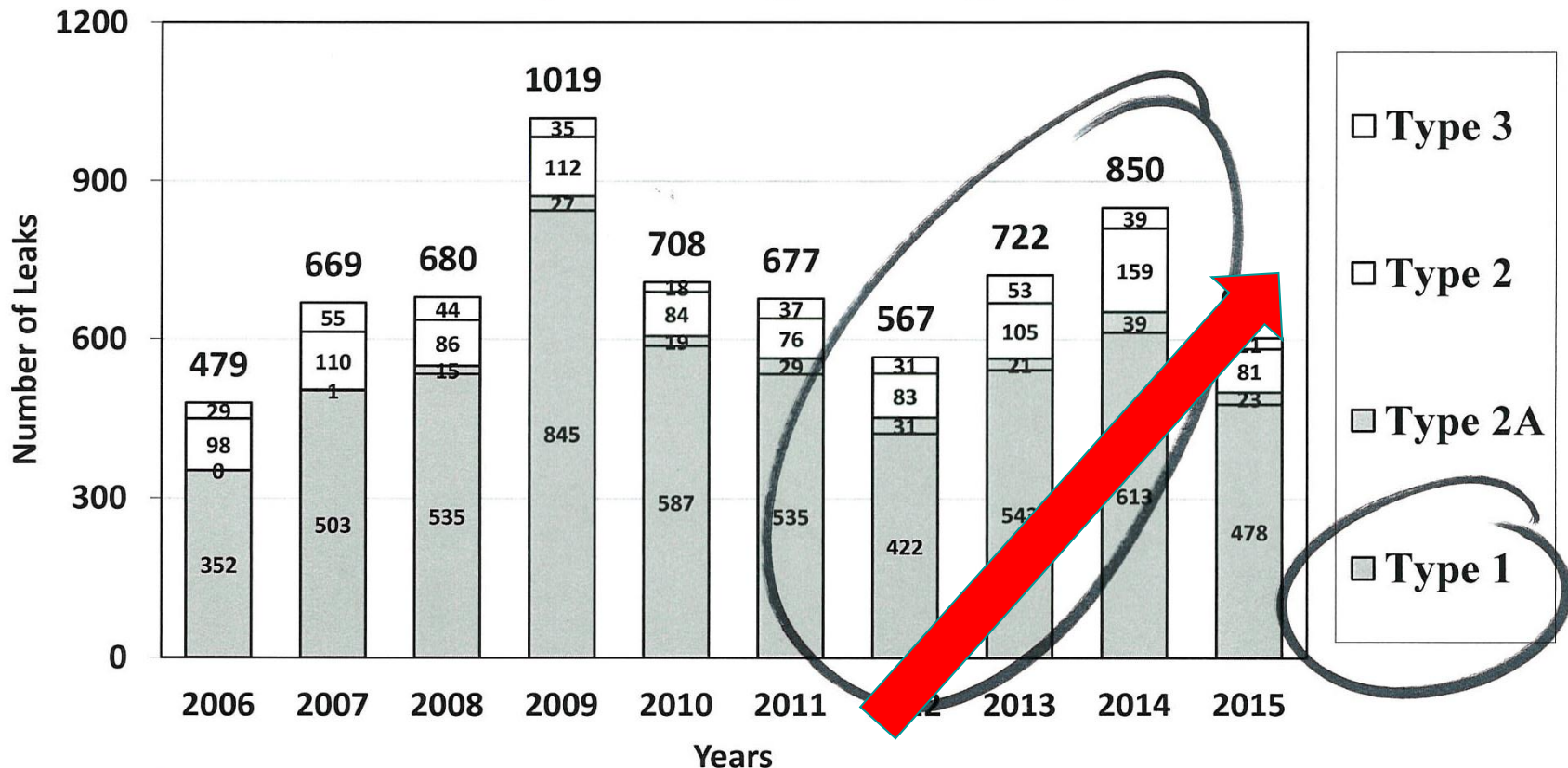
New 2017

2015 SYSTEM INTEGRITY REPORT

LEAKS REPAIRED By REPAIRED Type

SERVICE

(Including damages)




Note: 2014 uses revised numbers due to data correction

38,000 Bare steel gas services

- Write an algorithm to determine highest risk...
- Age of pipe
- Cluster areas of active corrosion
- Soil resistivity
- Operating pressure
- Proximity to buildings
- Etc.





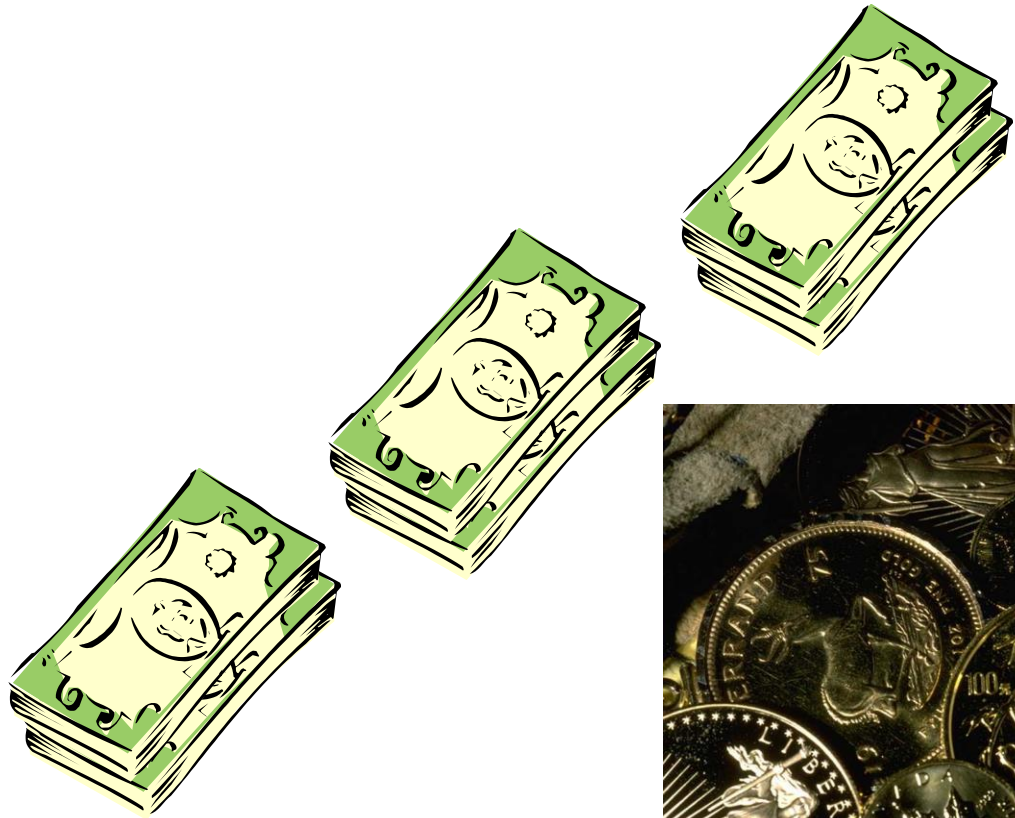
**Replace 200
per year**

Civil Penalties Collected 2015:

\$109,500



Civil Penalties 2016:



Failure to inspect a gas main under a bridge from 1999-2016

§192.481(a) Atmospheric Corrosion

\$10,000 Civil Penalty





**Failure to secure a gas service 2,565
days late.**

§192.727(d)(1)(2)(3) -

**\$36,200
Civil Penalty**

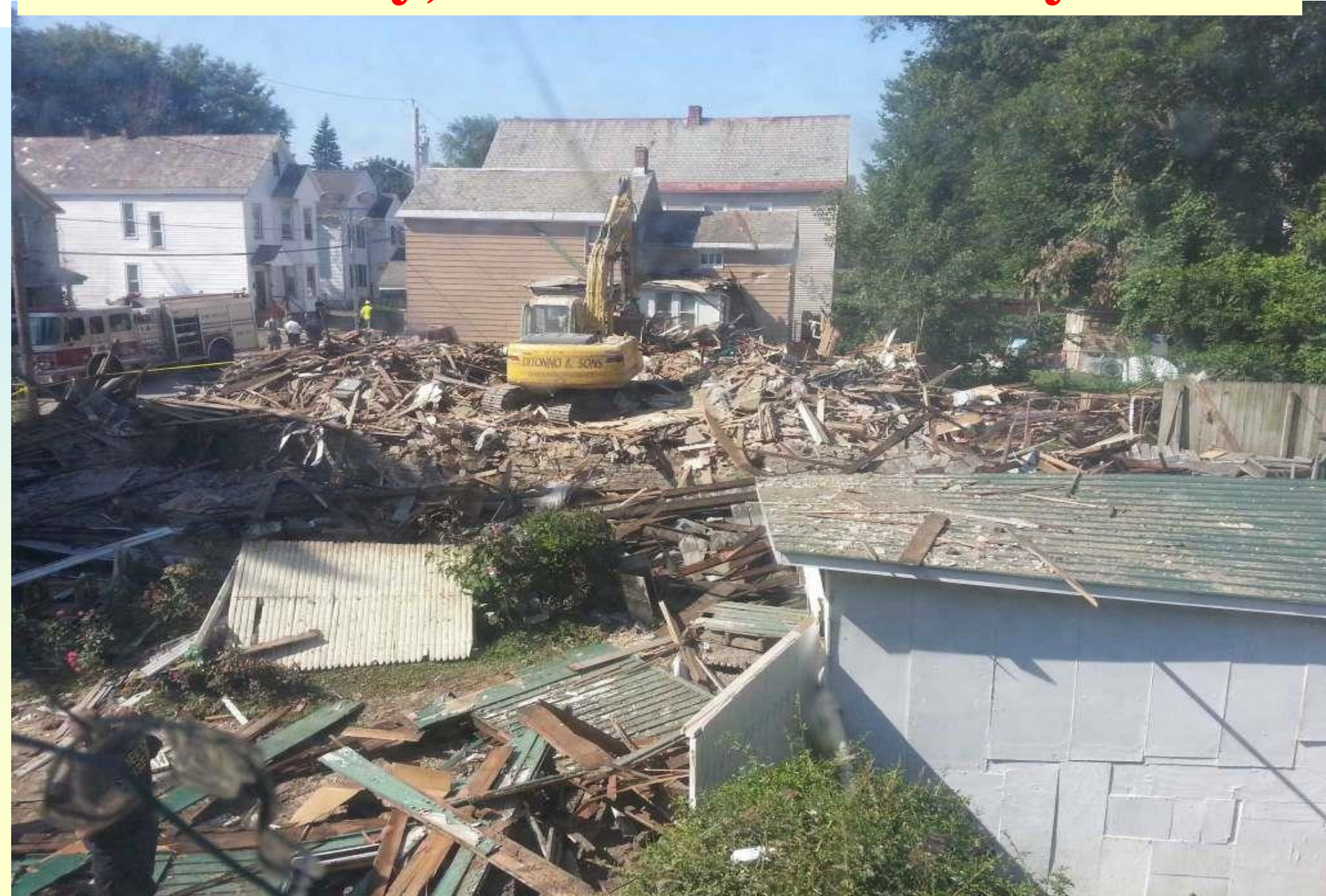




Abandoned buildings ongoing problem



Schenectady, NY – Service on 6 years



Overpressure at a regulator station

§192.621(b) No overpressure protection

**\$12,500 (Proposed)
Civil Penalty**





Since 1984



DigSafe
NE ME NH NY

Call Dig Safe before you dig.

*It's smart, it's free,
it's the law.*

Dial **811**

digsafe.com

311

2008

The Numbers

104 NOPV's Submitted in 2015

53 resulted in civil penalties

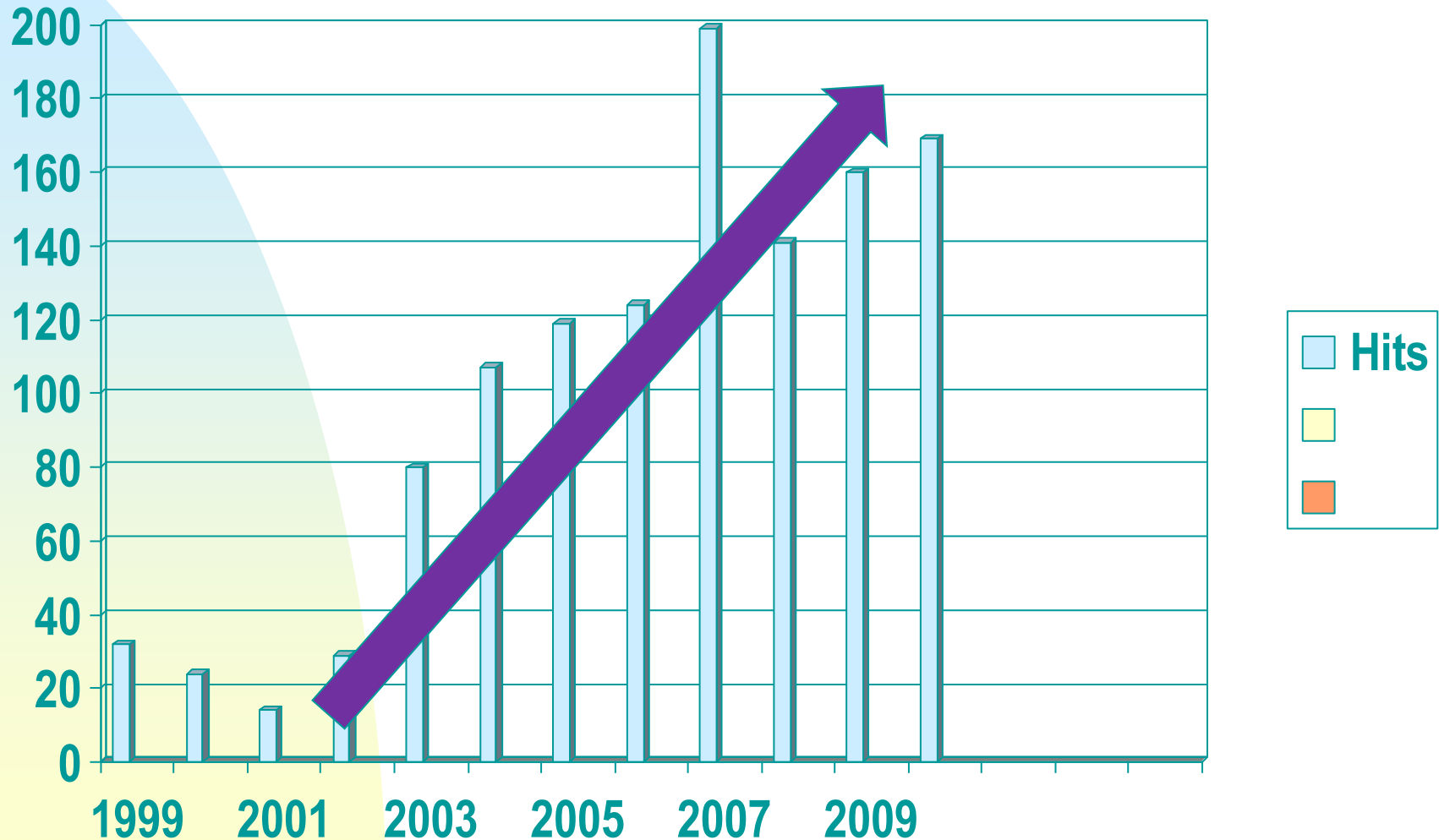
\$23,800.00 Collected



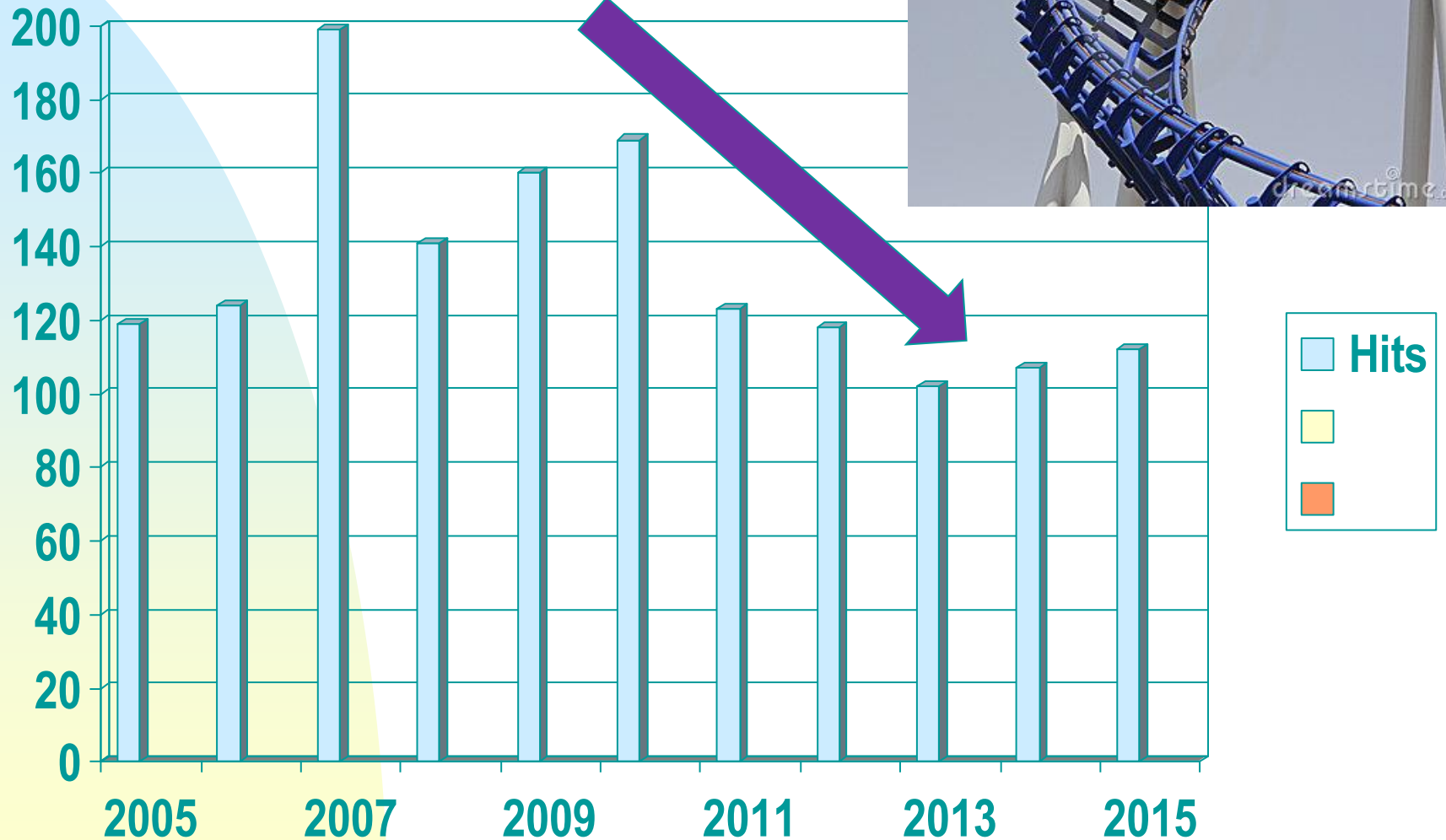
Dig Safe Public Awareness



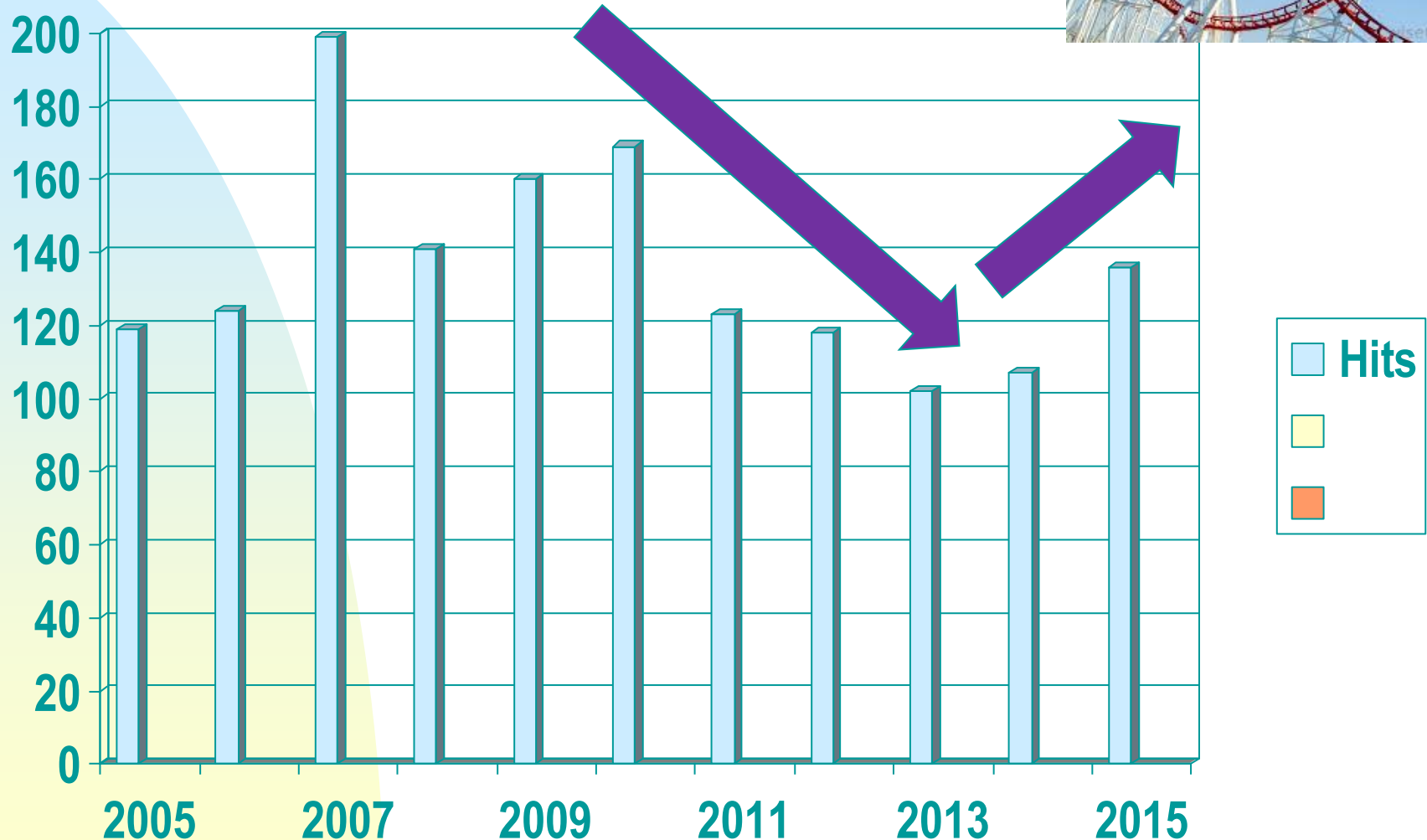
Gas line hits prior to 2010



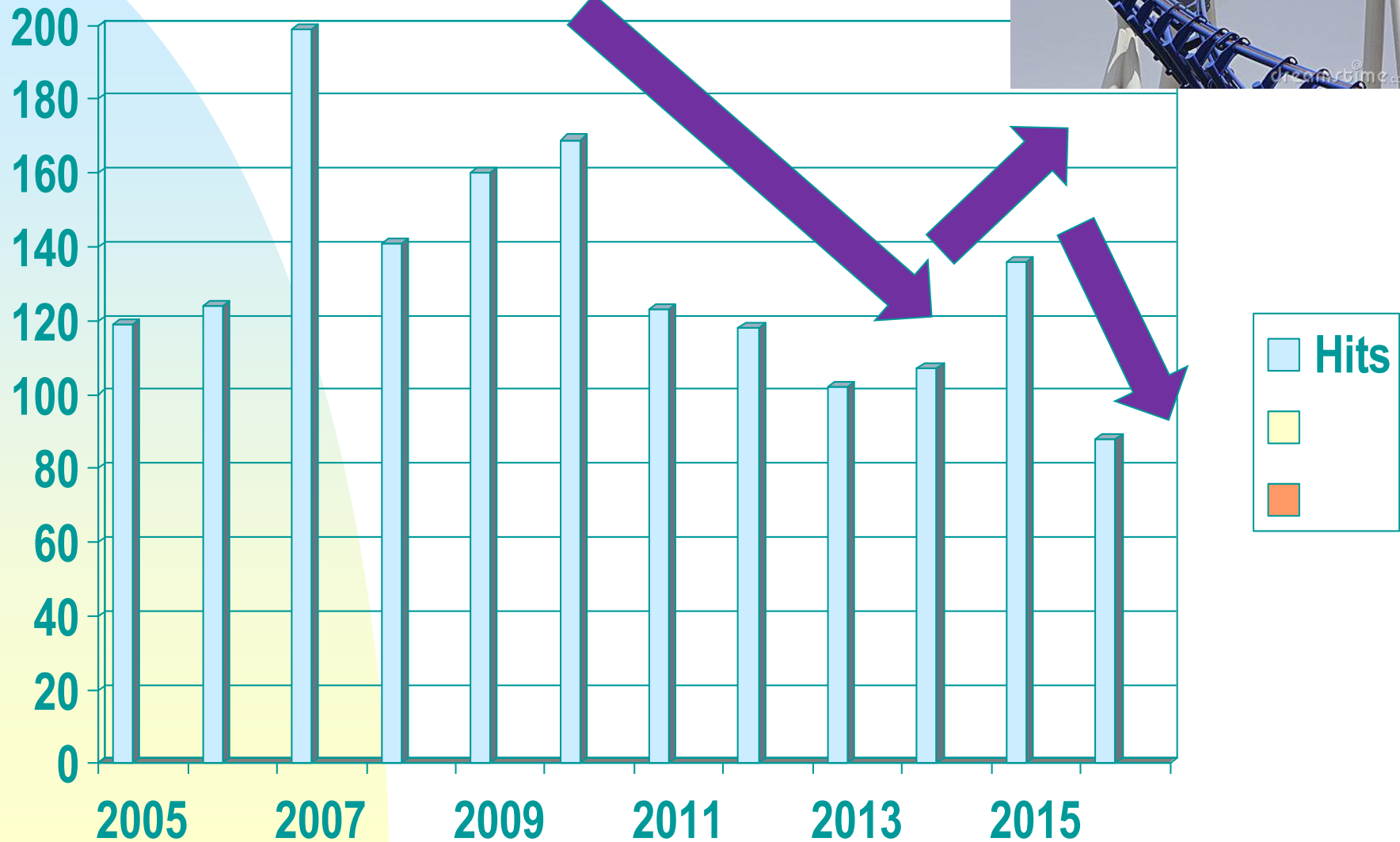
Gas line hits per year



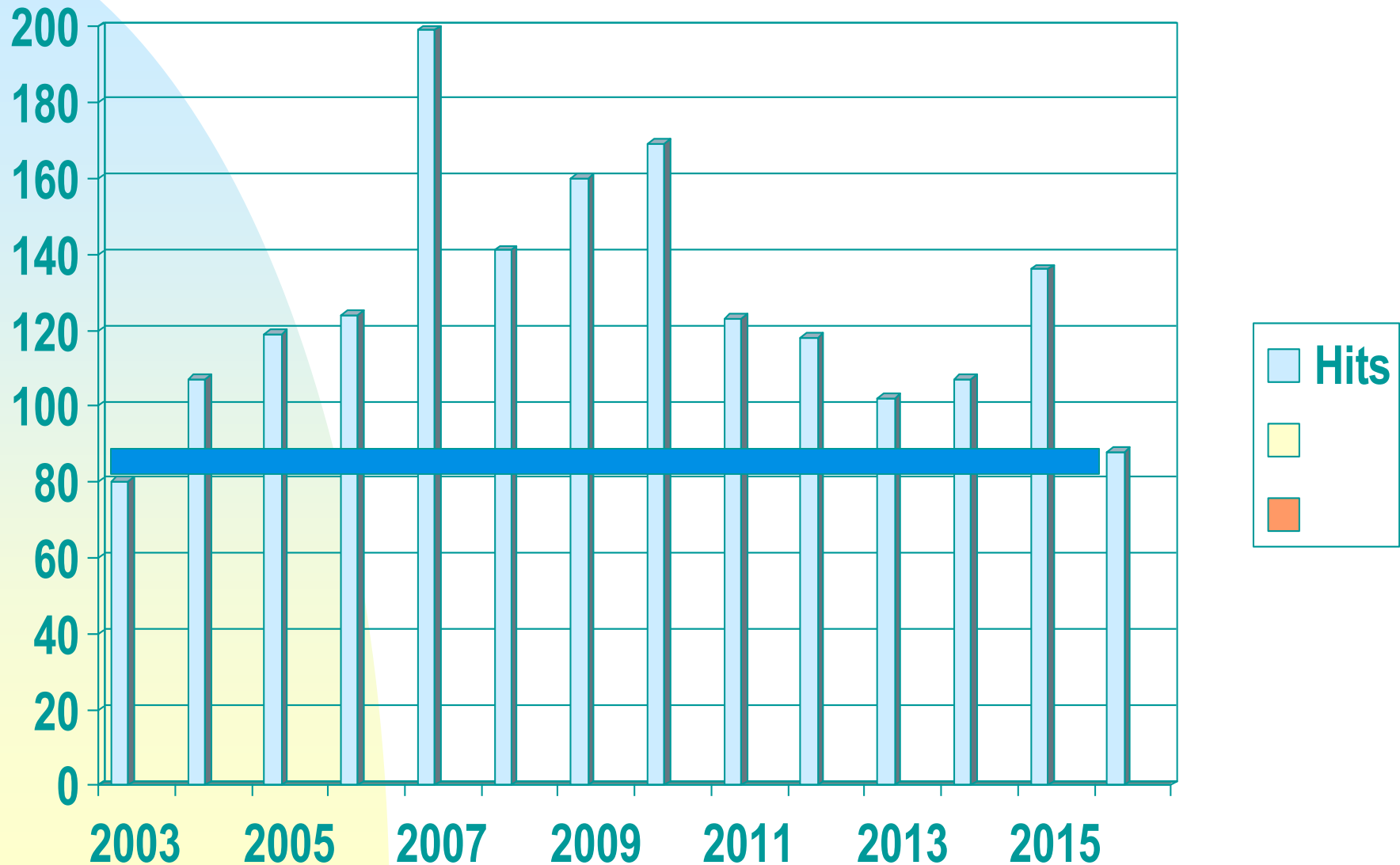
Gas line hits per year



Gas line hits per year



Lowest hits since 2003!



Found out in the field



No “Positive Response” in our Law



Found out in the field



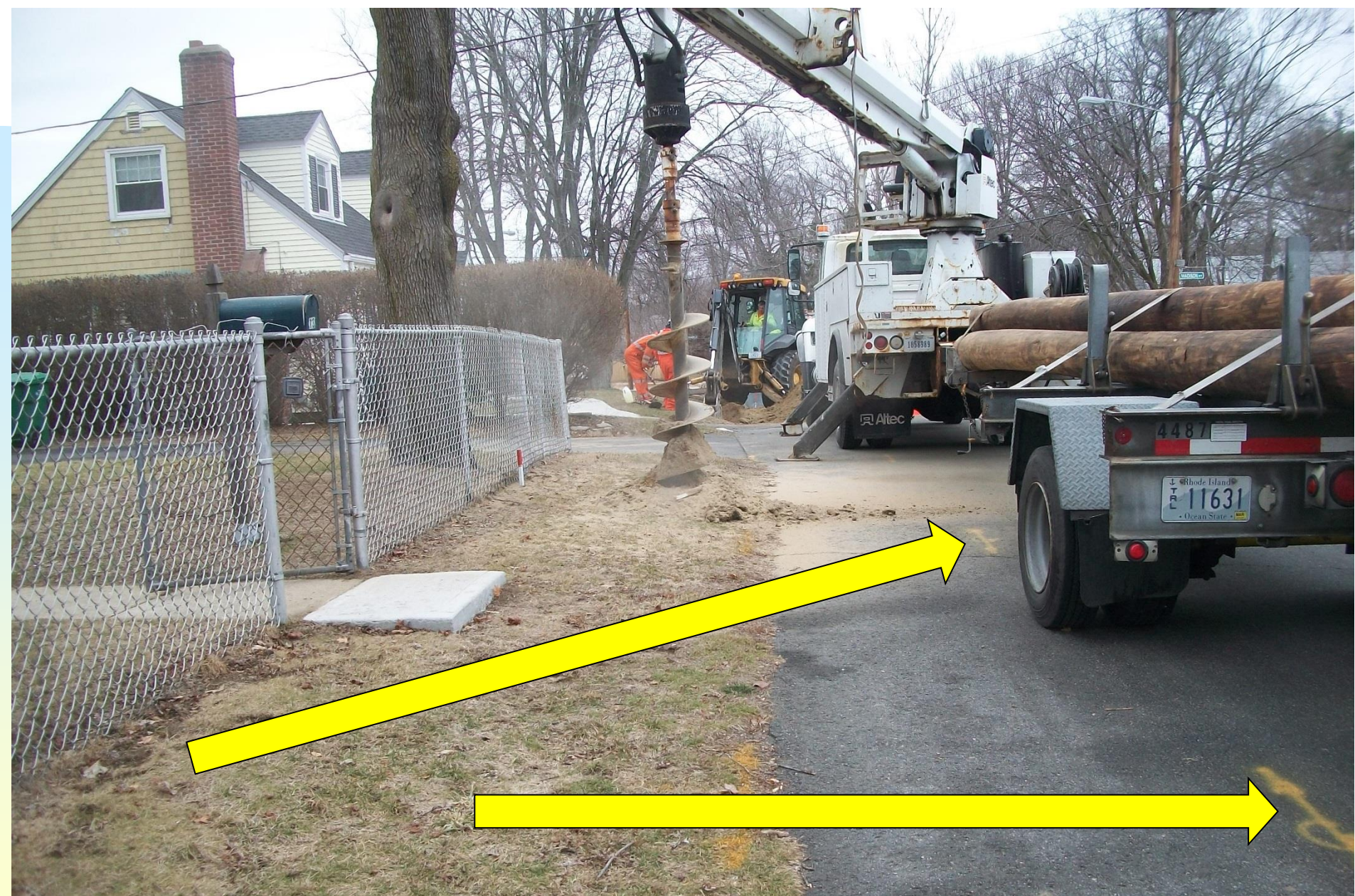


2 Premark stakes



Water Valve

Gas main marked in sidewalk



Problem: Gas main marked in street



Ok

No Good

No Good

Law: Only Mark 15 ft outside the premark



The gas main was marked properly.

Found out in the field





Gas line marked with blue flags?

Contractor uses pipe location a depth gauge...



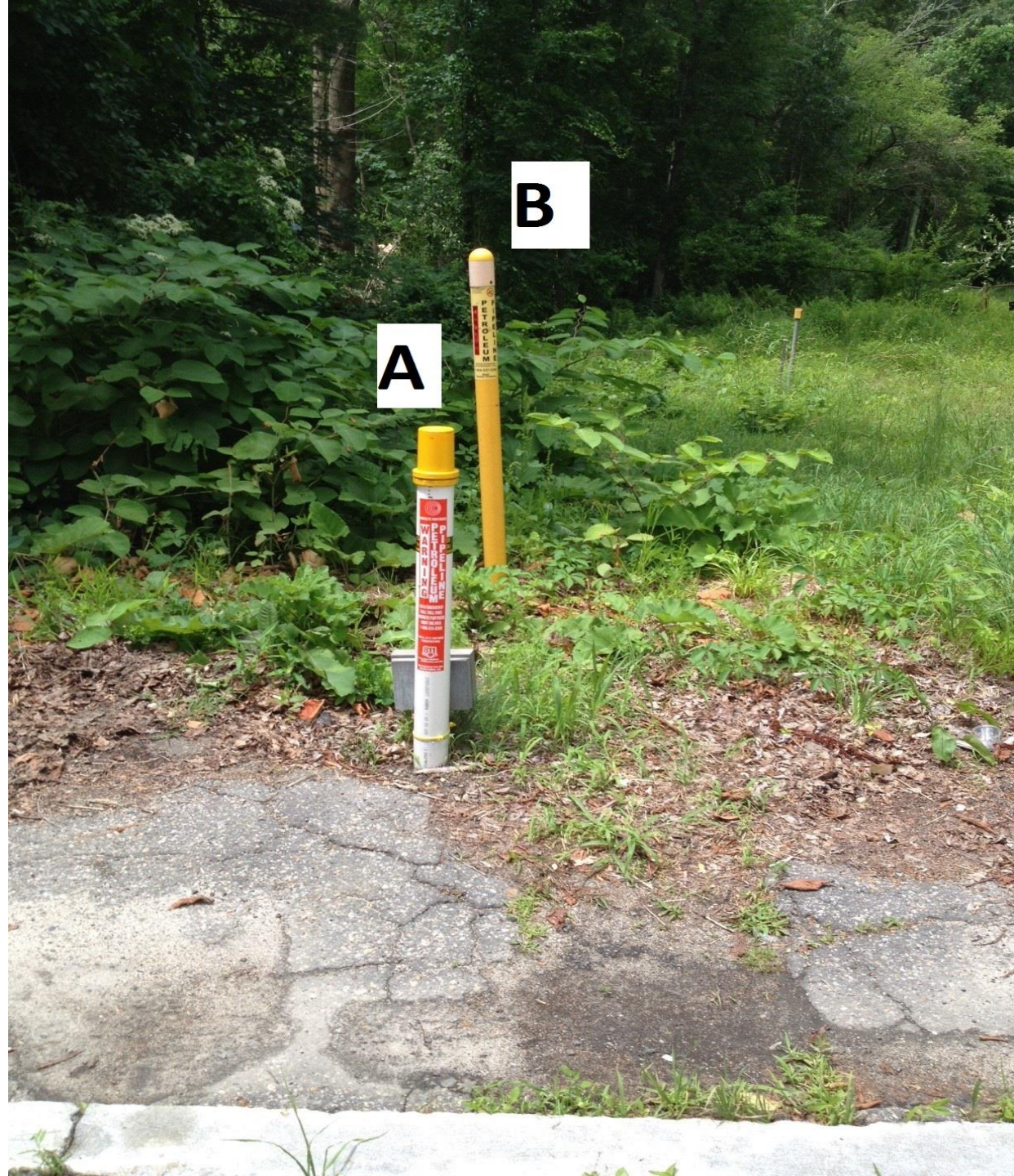
Pulled out the service, 60 lb gas blowing...



Found out in the field



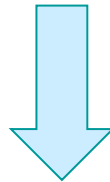
No more Liquid line In RI



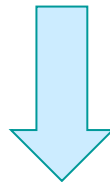
DIMP



CFR Part §192.1005 by August 2, 2011 Have a written DIMP Plan



5 Years



CFR Part §192.1007 by August 2, 2016 Conduct a complete program reevaluation of your current DIMP Plan.....

Reportable Mechanical Fitting Failures CFR Part §192.1009



Reportable Mechanical Fitting Failures CFR Part §192.1009

**Report Only
Hazardous
Leaks**



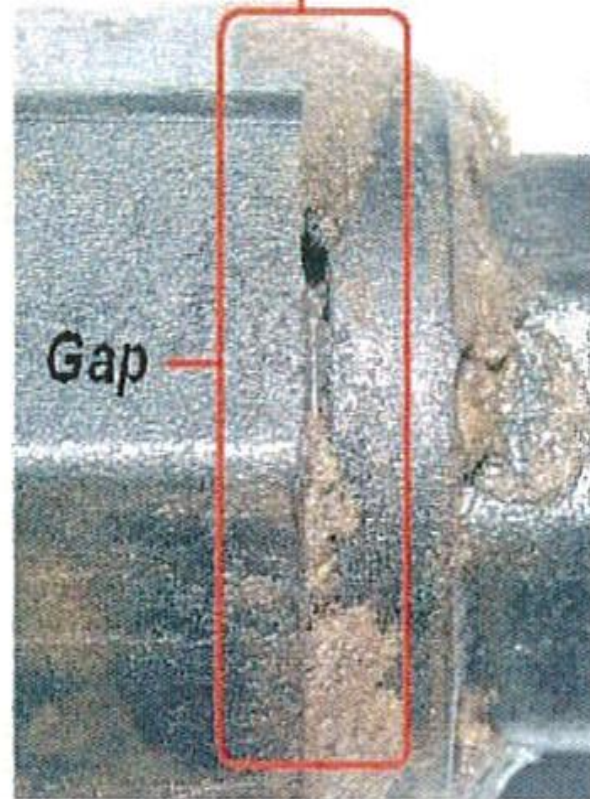
Investigate Mechanical Fitting Failures CFR Part §192.617

Near misses....



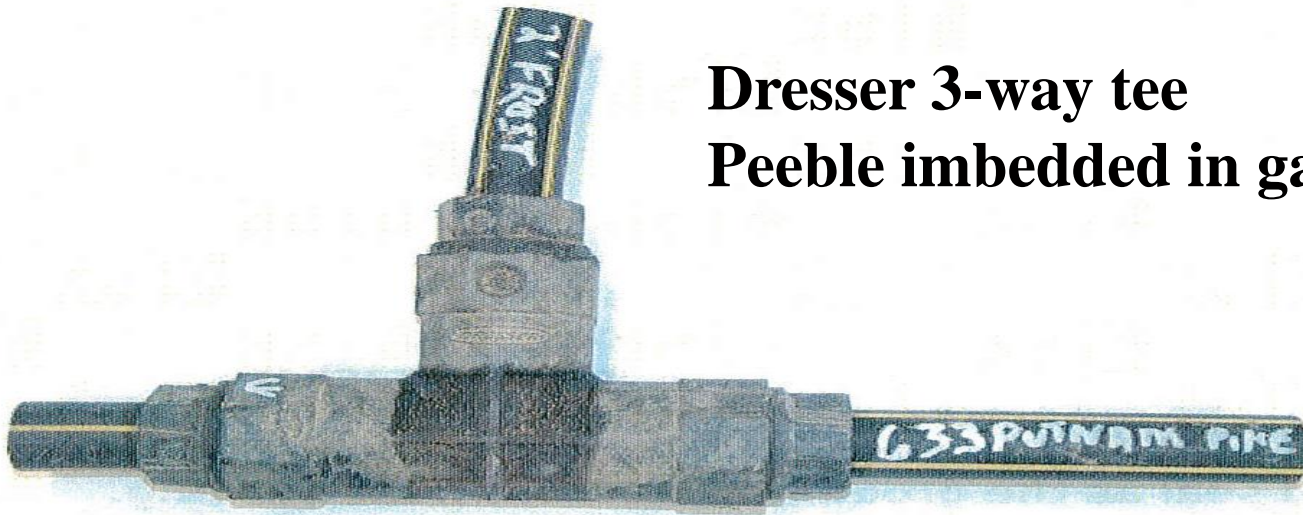


Dresser Style 399
Nut not tightened



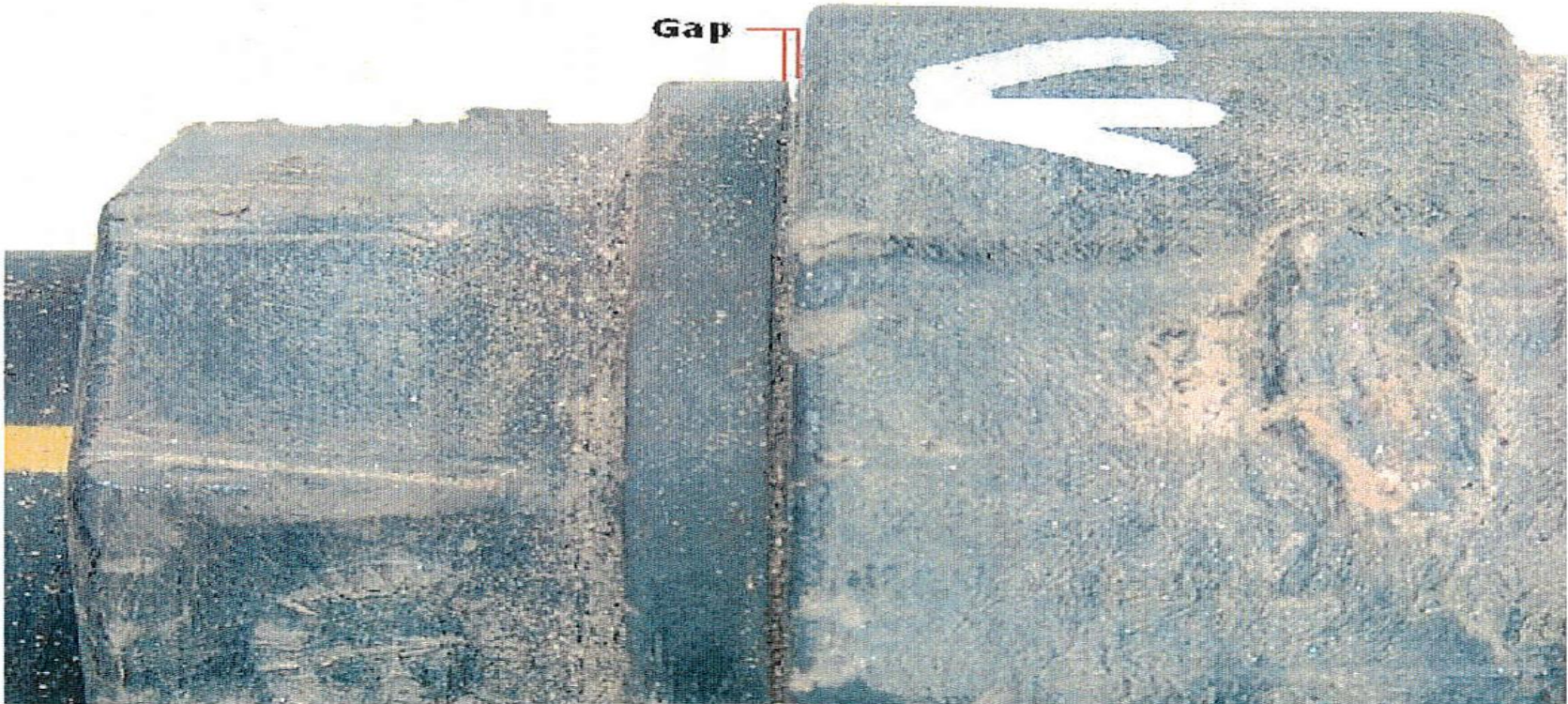
address.

Dresser 3-way tee Peeble imbedded in gasket



There is a slight gap on one of the compression nuts.

Gap

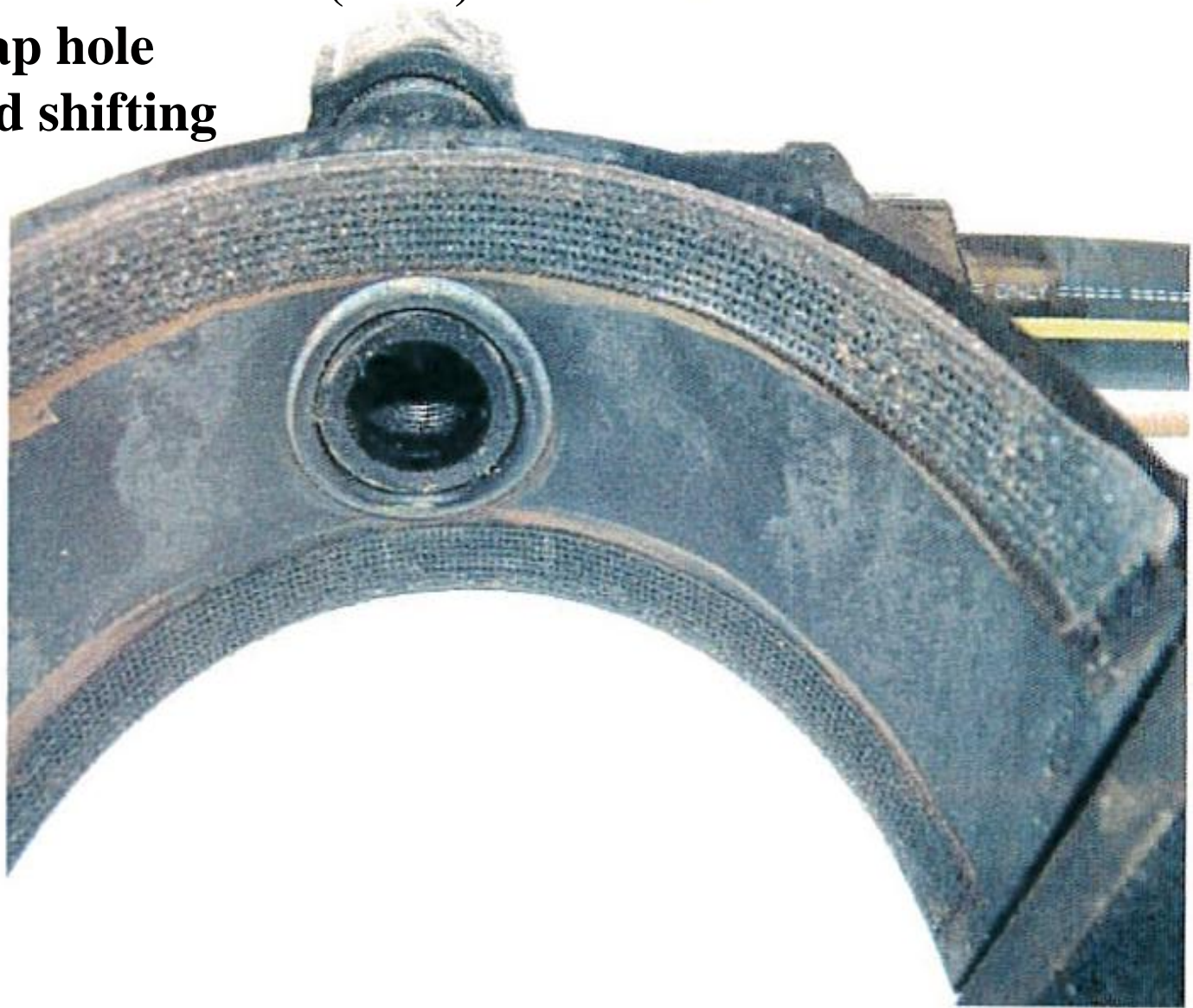


2" Polybutylene SDR 9 (1976)
Crack from rock impingement
Plunger hole day of investigation



Dresser Mech. Service Tee (1998)

**Slid off the tap hole
due to ground shifting**



The failure is due to an unreliable design.

Electrofusion Tee: Improper manual setting input into machine

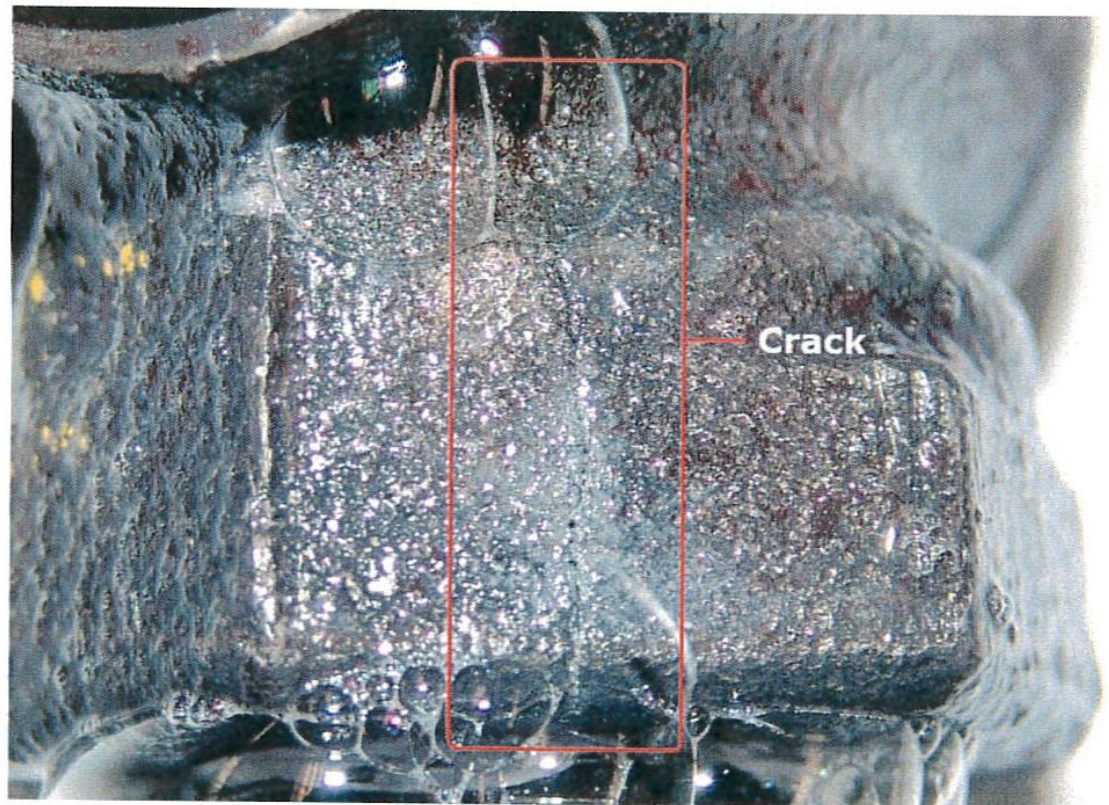


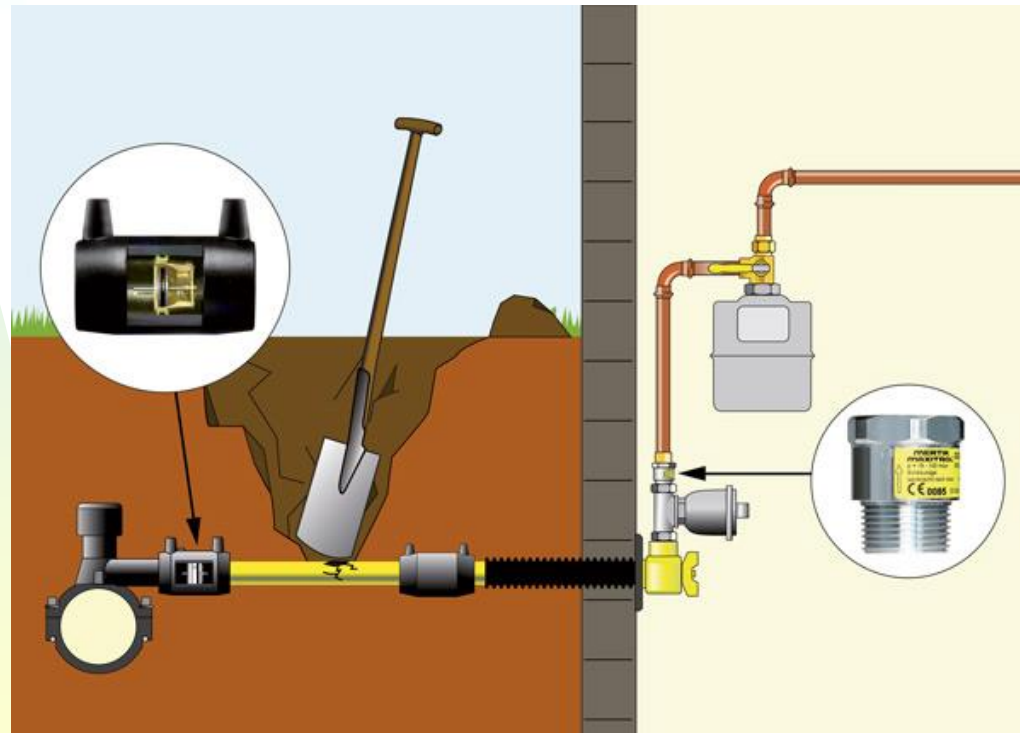
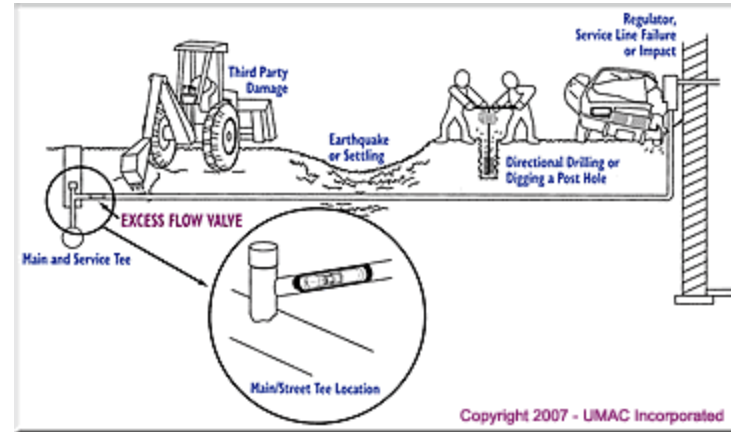
Perfection Permasert Valve: Over turned breaking the valve stops





Mueller Insulating Riser Valve:
Not caused by over tightening,
manufacturers defect.





Excess Flow Valves

§192.381(d) Service Lines: Excess flow valve performance standards requires,

(d) An operator shall locate an excess flow valve as near as practical to the fitting connecting the service line to its source of gas supply.

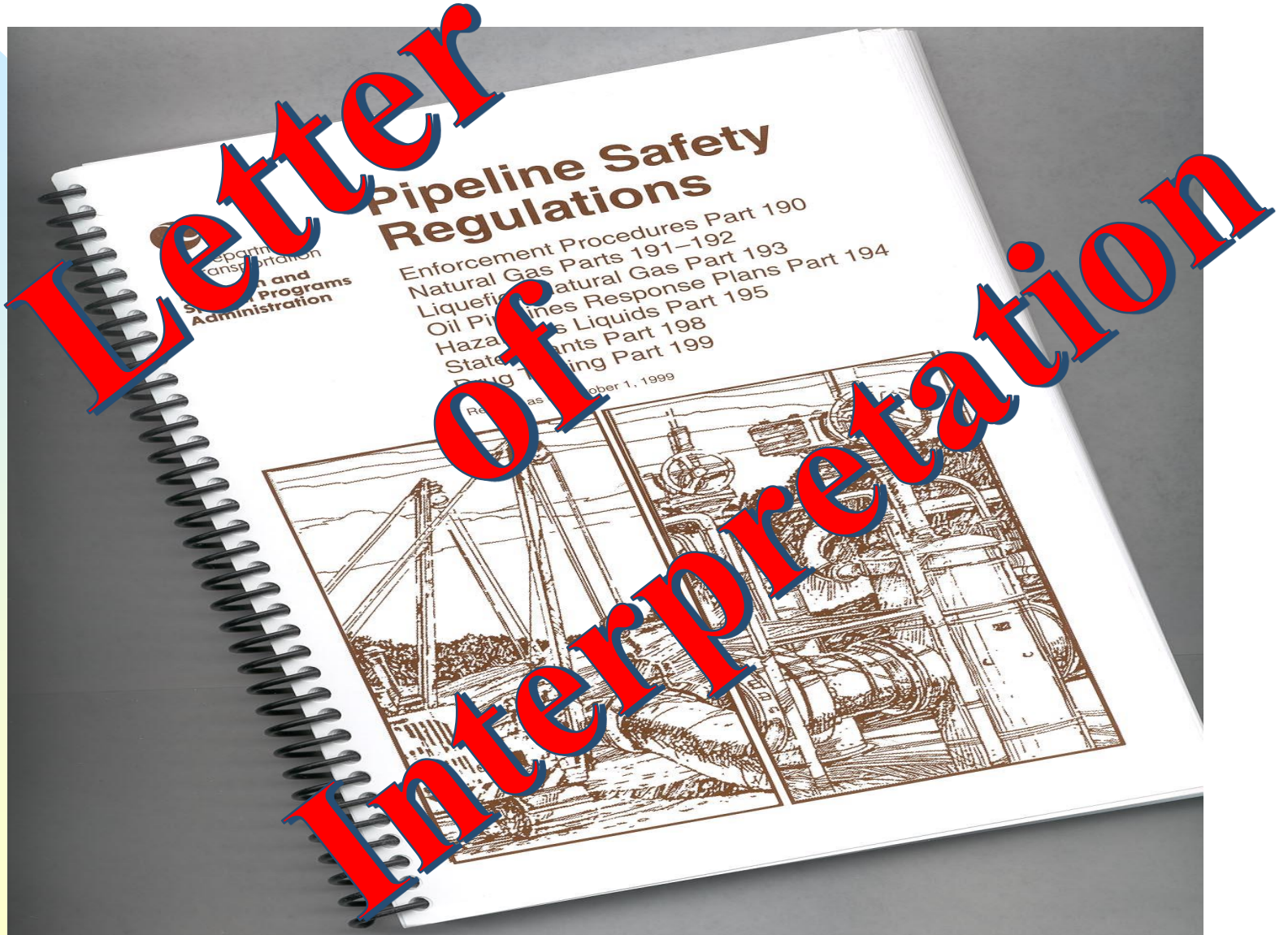
i.e. at the main



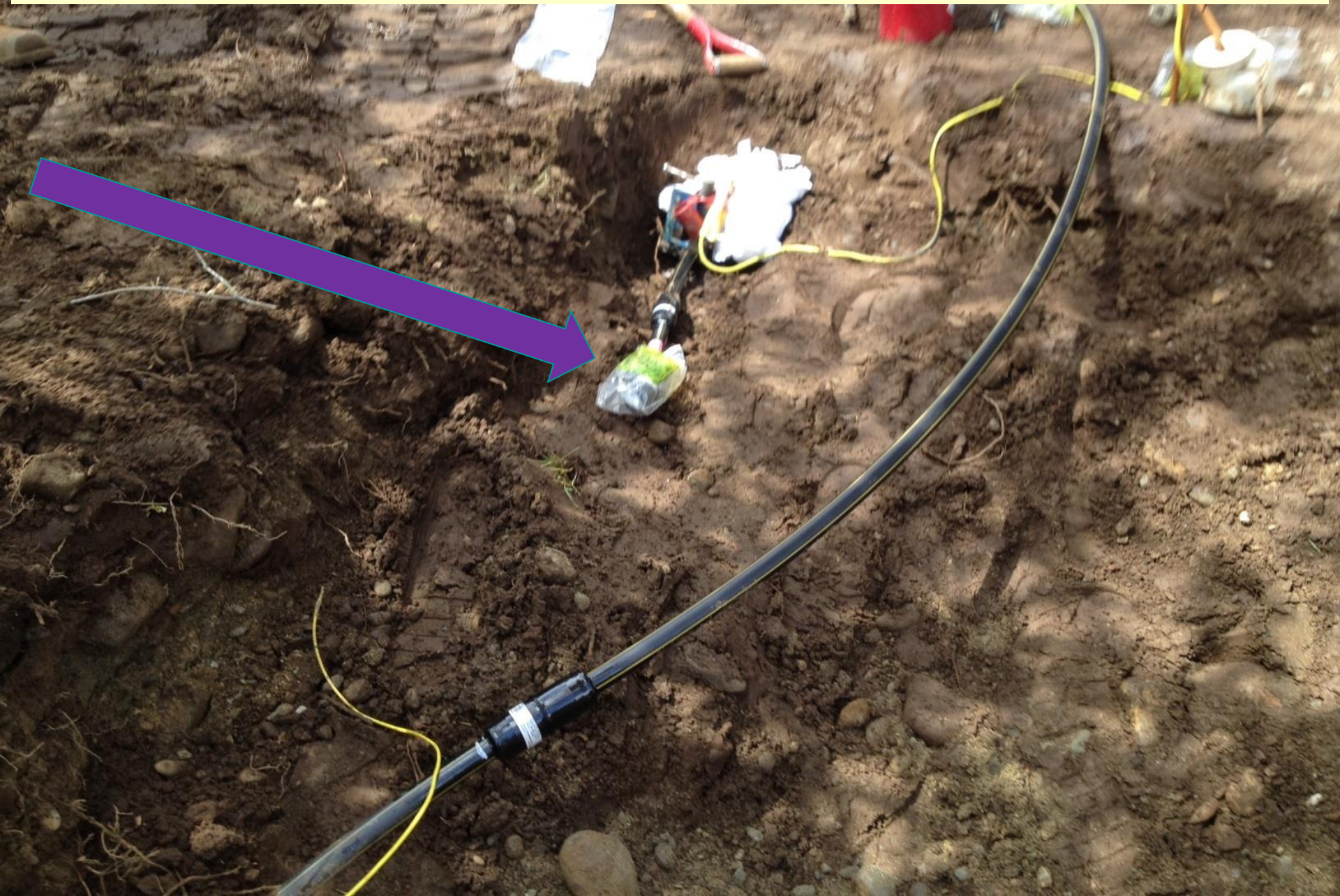
What about 3rd Party Damage?



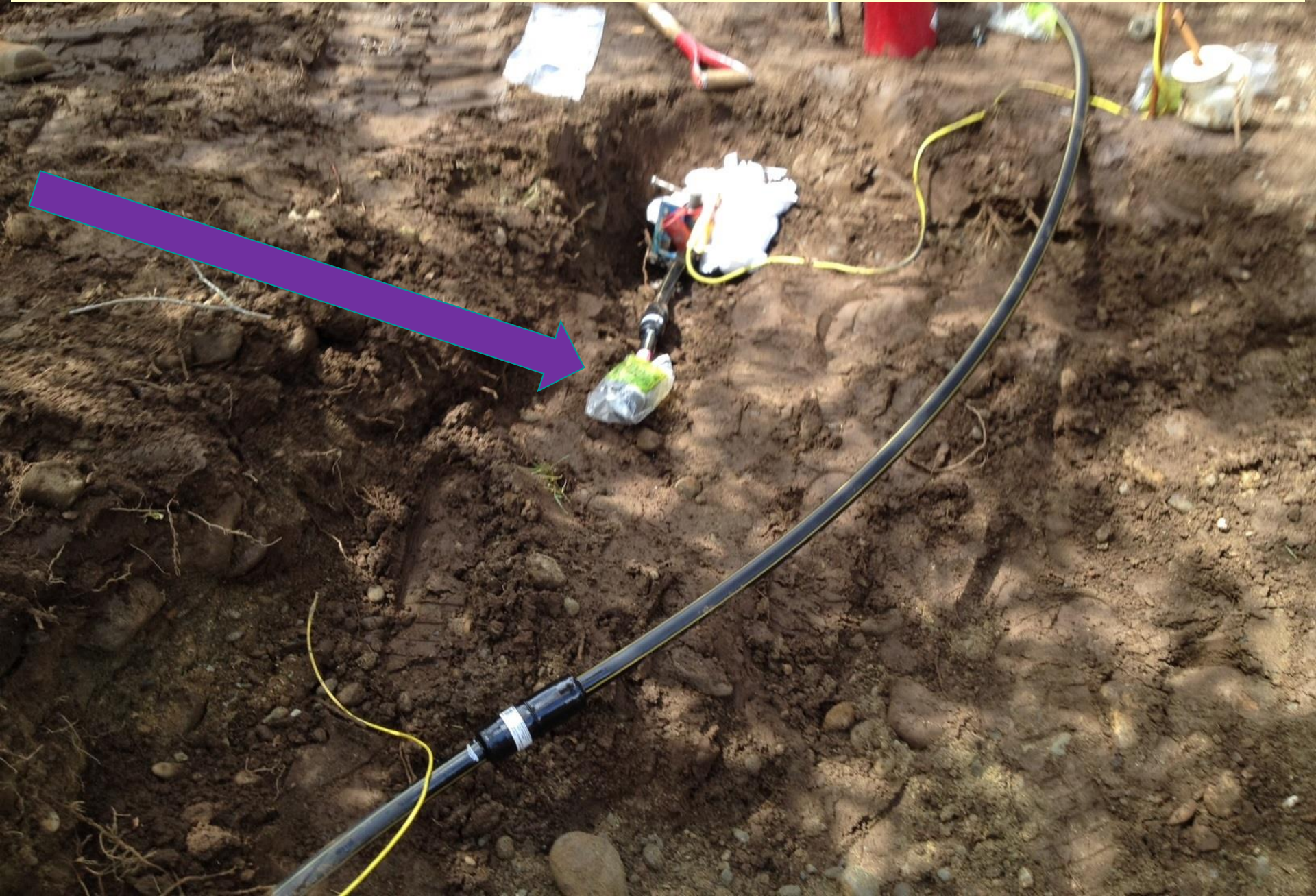
Federal Code CFR 190-192



Where do you install the flow Limiter?



At the location of where the damage occurred?



...or back at the main?



“We agree with your understanding that if an excess flow valve is installed, it should be placed as near to the source of gas supply as practical to ensure the excess flow valve protects the maximum length of service line. An excess flow valve is required if the service line from the main to the customer's house, or a segment of service line near the fitting connecting the main to the service line (where an excess flow valve is usually located), is replaced. However, an excess flow valve is not required for replacement of short segments of service line far away from the main or source of supply because excess flow valves in those locations may not provide excavation-damage protection.”

USDOT, PHMSA reply dated Feb. 10, 2016

No Reportable Incidents 2016

**DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
OFFICE OF PIPELINE SAFETY**



PIPELINE SAFETY REGULATIONS

PART 191

**ANNUAL REPORTS, INCIDENT REPORTS
AND
SAFETY RELATED CONDITION REPORTS
(Current through Amendment 14)**

Public Awareness



Pipeline Public Awareness

Strengths, Weaknesses, Opportunities, and Threats (SWOT)

Public Awareness Program Working Group

May 16, 2016

Strengths

Weaknesses

Opportunities

Threats

60 page report – My top 5 results of the report

60 page report – My top 5 results of the report

1.) Information overload.....



60 page report – My top 5 results of the report

2.) Operators are required to take action but stakeholders are not required to listen.....



60 page report – My top 5 results of the report

3.) No requirements for emergency responders to meet with operators.....



60 page report – My top 5 results of the report

4.) Revise API RP1162 1st edition (2003).....

“API is currently preparing the scope document to guide the next edition of 1162”



60 page report – My top 5 results of the report

5.) Revise the Federal inspection form.....

Form - 21

Public Awareness Meeting

- Dallas, Texas
- June 19, 2013
- **1,218 days ago**

266 days after the Dallas Meeting

March 12, 2014

East Harlem, NY, 8 Deaths



Appendix B. NTSB Timeline



- | ■ <u>Time</u> | <u>Event</u> |
|---------------|---|
| 9:06 a.m. | Resident of 1652 Park Avenue called Con Edison to report smelling gas that morning <u>and the night before.</u> |
| ■ 9:30 a.m. | An explosion destroyed Buildings 1644 and 1646 Park Avenue, resulting in loss of eight lives and multiple injuries. |

The Con Edison mechanic was en route...

Public Awareness Meeting

- Chicago, Illinois
- July 13, 2016

37 days after the Chicago Meeting

March 12, 2014

Silver Spring, Maryland 7 Deaths, 40 injured



16 days later...

March 12, 2014

Paterson, NJ ***No injuries*******



...Propane



RI Inspections next month

2016

January						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

February						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

March						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Propane News



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37

36

35

Natural Gas comes to Main St USA



DEM
04-0440

08/03/2015



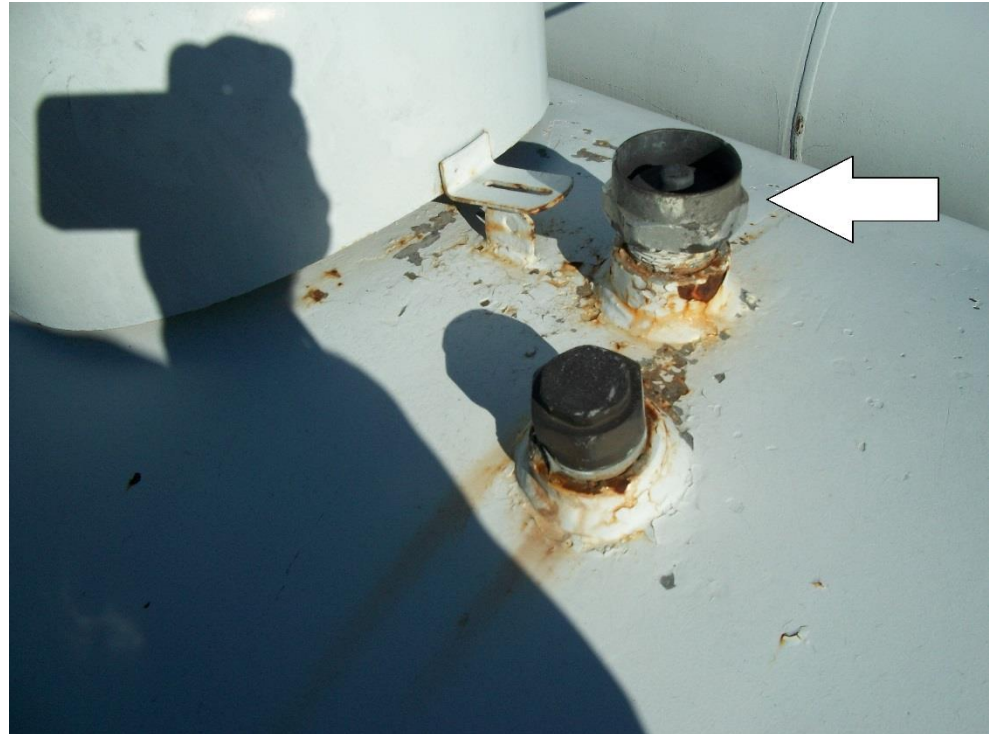




Found out in the field



Missing Rain caps



Damaged Rain caps



Missing Fill cap



Easy affordable fixes



Overfull?

Empty?

Gage broken?





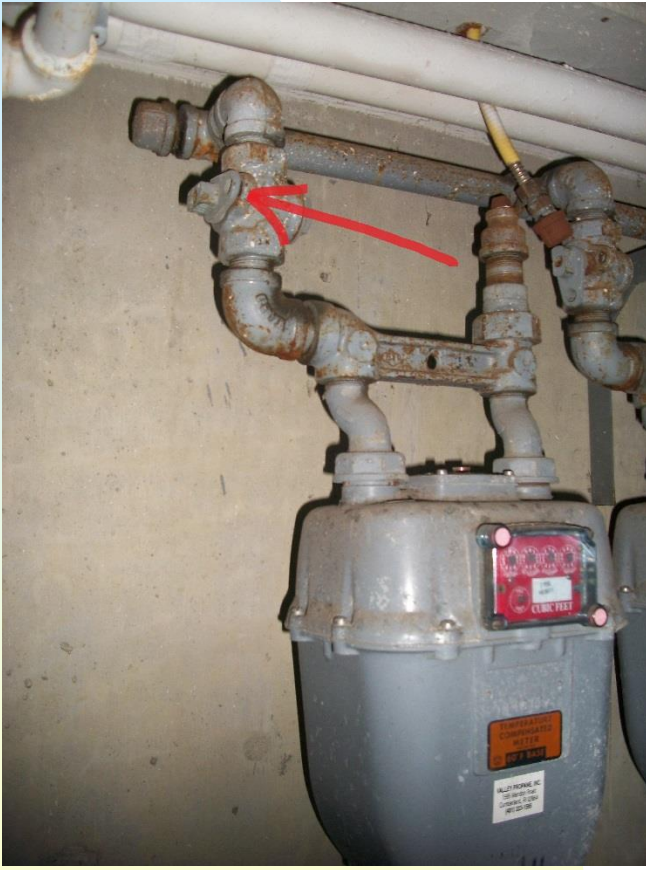




RYDER

RENT
ONE
WAY
& LOCAL

No locks on “off” meters



Broken shut off valves



Damaged copper line



High water table





A lot changes in one year

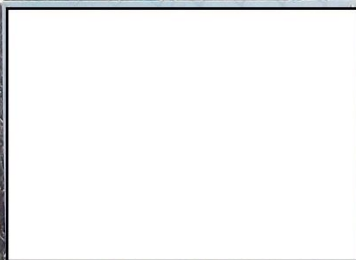


New safety signage!





NO SMOKING



12/15/2014





13 psig

The image shows a red pressure-reducing valve (PRV) installed on a yellow gas line. A pressure gauge is mounted on top of the valve, displaying a reading of 13 psig. The valve has a white handle and is secured with several red screws. The gas line is yellow and runs horizontally across the frame. The background consists of a concrete wall and a concrete slab.

Time's Up...



The End

